2. Alan

Program Name: Alan.java   **Input File: alan.dat**

In Alan's Integrated Physics and Chemistry class, Alan's teacher has just introduced the concept that temperature is traditionally given in either Fahrenheit, Celsius, or Kelvin. Alan is familiar with both Fahrenheit and Celsius since he has spent time in both America and Europe, but the concept of temperatures in Kelvin is still a bit new and unfamiliar to him. In an attempt to better understand temperatures in Kelvin, Alan has the idea to write a program that will convert a given Fahrenheit temperature to Kelvin. Alan knows the formula for converting from Fahrenheit to Kelvin is:

$$K = 5/9(F - 32) + 273.15$$

Where K is Kelvin and F is Fahrenheit. Alan is having a bit of trouble with the math though, and would like your help completing the program. Think you can assist him with the task?

Input: Input will consist of an integer N, the number of test cases. The number of test cases will be in range [1,20]. Each subsequent line will contain an integer degree F, representing the temperature in Fahrenheit. F will be in range [-250,250].

Output: Each line of output must consist of "`F degrees Fahrenheit is equal to K Kelvin`", where F is the input temperature in degrees Fahrenheit, and K is the converted temperature in Kelvin using the formula above. Output should be formatted to two decimal places after the decimal point.

Sample input:
```
5
32
100
25
212
-5
```

Sample output:
```
32 degrees Fahrenheit is equal to 273.15 Kelvin
100 degrees Fahrenheit is equal to 310.93 Kelvin
25 degrees Fahrenheit is equal to 269.26 Kelvin
212 degrees Fahrenheit is equal to 373.15 Kelvin
-5 degrees Fahrenheit is equal to 252.59 Kelvin
```